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DESCRIPTIONS OF THREE NEW RACCOONS FROM
THE MEXICAN BOUNDARY REGION.

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On reviewing the material of the genus *Procyon* collected by the author on the Mexican Boundary Line and comparing it with that in the United States National Museum, three apparently new forms have been distinguished, which are described below.

Procyon lotor fuscipes subsp. nov.

BROWN-FOOTED RACCOON.

Type-specimen.—Adult male, Cat. No. 63055, U. S. Nat. Mus.; collected on Las Moras Creek, at Fort Clark, Kinney County, Texas (altitude 308 meters or 1011 feet), February 6, 1893, by Edgar A. Mearns. (Original number, 2273.)

Characters.—Largest of the raccoons; in color closely resembling *Procyon lotor lotor* (Linnaeus), but usually with six instead of five distinct blackish tail rings; feet dark brown instead of whitish; white on convexity of ear occupying only the apical half instead of nearly all of the outer surface; blackish mask expanded so as to cover all of the face and extending from the nasal pad well upon the forehead in the median line; skull elongate, compressed postorbitally, with slender lengthened rostrum; bony palate narrow, with lateral rows of teeth nearly parallel; interpterygoid notch narrow and deep; audital bulke long and flattened externally.

Color (based on adult male type).—Upperparts from nape to tail, pale gray, everywhere darkened by black tips to the long hairs, but darkest in the vertebral area posteriorly; nape washed with rust color, of which a slight trace is carried backward across the interscapular region, where, however, it is much less distinct than in *Procyon lotor lotor*; black mask solid and continuous across the face and along the side of the head to a point below the ear and also extending forward as a median band to the naked nasal pad and backward to the grizzled black crown; area border-

ing the black mask posteriorly, grizzled, not white; sides of muzzle and lower lip white; ear white on apical half of outer surface, black, slightly grizzled, on basal half, with a blackish band, about eighty-five millimeters in length, extending along the base of the ear and well behind it at the side of the neck; fore and hind limbs, including feet, fuscous with some admixture of grayish; tail with a black tip and six blackish rings, which become obsolete proximally on the under side; upper throat benzo brown; overhair of remaining underparts grayish white, the drab underfur everywhere visible between the scanty long hairs; underfur of upperparts fuscous; whiskers mostly white, some of the short anterior ones blackish drab, and a few of the longer ones tipped with the same.

External measurements of the type (old male; measured fresh by the author).—Total length, 900 mm.; tail vertebrae, 290; ear above crown, 58; hind foot, with claw, 132; longest whisker, 95; longest hairs on dorsum, 50.

Cranial and dental measurements of type, compared with measurements of largest adult male in a series of one hundred specimens of *Procyon lotor lotor*,* the latter in parentheses.—Condylbasal length, 125 (122); zygomatic breadth, 85 (80); breadth of braincase, 57 (56); postorbital constriction, 22 (25); interorbital constriction, 27 (25); rostral breadth over canines, 29 (30.5); least rostral breadth, 28 (28); from posterior border of middle incisor to interpterygoid notch, 72 (75); from the last point to the foramen magnum, 43 (38); length of interpterygoid notch, 17 (15); posterior breadth of interpterygoid notch, 18 (—); distance between anterior premolars, across palate, 19 (21); distance between posterior premolars, 20 (23); distance between posterior molars, 21 (26); length of audital bulla, 22.5 (20); length of mandible, 93 (91); length of upper lateral tooth row, including canine, 48 (46); combined length of upper molars, measured on crowns, 15 (15); length of upper incisor tooth row, measured on alveoli, 17 (16.5); length of lower lateral tooth row, including canine, alveoli, 54 (53); combined length of lower molars, measured on crowns, 21 (20); lower incisor tooth row, measured on alveoli, 13 (12).

Geographical range.—Devils River to Matamoras, south to San Luis Potosi.

Remarks.—A raccoon, very doubtfully from Texas and from no definite locality, was described by Gray as *Procyon nivea* (Charlesw. Mag. N. H., I, 1837, p. 580); but several forms of *Procyon* inhabit Texas, and, Gray's type of *nivea* being an albino, its identification is impossible.

***Procyon lotor ochraceus* subsp. nov.**

SONOYTA RACCOON.

Type-specimen.—Male, subadult (skull with sutures remaining open, but all of permanent teeth in place), Cat. No. 59900, U. S. Nat. Mus.; collected on the Sonoyta River near Quitobaquita, at Monument No. 172, 678 kilometers (421 miles) west of the Rio Grande and 181 kilometers

* Cat. No. 187926, U. S. National Museum; Elk River, Minnesota; from Merriam collection.

(113 miles) east of the Colorado River, altitude 360 meters (1181 feet), Sonora, Mexico, February 7, 1894, by Edgar A. Mearns. (Original number, 2937.)

Characters.—Skull and teeth indistinguishable from those of *Procyon lotor mexicanus* (Baird)* of similar age; color paler, more ochraceous, and with less black than in any other known form of *Procyon*; pelage extremely long and soft.

Color (based on the male type in winter coat).—Upperparts, from nape to tail, strongly tinged with buff; longest hairs narrowly tipped with drab-brown on thoracic region and sides, with much broader tips of brownish black in median lumbar and lower thoracic regions; underfur of dorsum light mouse gray at base, shading to mouse gray apically; face mask of the usual pattern, cinnamon-drab on upper side of muzzle, deepening to fuscous around and below eye, then paling to benzo brown on side of face posteriorly; sides of muzzle and its under surface white, this color extending broadly around angle of mouth and occupying the whole of the lower jaw; crown whitish anteriorly, next to the dark face mask, rapidly deepening to pallid purplish gray posteriorly, with the dense underfur drab; ears and whiskers entirely pure white; no blackish area on side of crown at base of ear; fore and hind limbs soiled, slightly yellowish, gray externally, grayish white internally; hands and feet clayey white; long overhair of underparts and inner surface of limbs grayish white, and so sparse that the light drab underfur everywhere shows through, imparting the general color to the underparts; tail yellowish white above, with five rings, of mixed brownish and yellowish long hairs, which become obsolete on the under surface; underfur of tail very pale drab above, and whitish drab below; underfur on throat light cinnamon-drab; naked parts of feet purplish black; claws horn color, or brownish on median upper surface.

Measurements of type (external measurements taken from the fresh specimen by the author).—Total length, 750 mm., tail vertebrae, 310; pencil, 55; ear from crown, 47; manus, including claw, 90; pes, including claw, 115; longest whisker, 113; longest hairs on dorsum, 78. Skull and teeth: condylobasal length, 108; zygomatic breadth, 73; breadth of braincase, 54; postorbital constriction, 27; interorbital constriction, 23.5; rostral breadth over canines, 26; least rostral breadth, 24.5; from posterior border of middle incisor to interpterygoid notch, 65; from last point to foramen magnum, 34; length of interpterygoid notch, 14; posterior breadth of interpterygoid notch, 11.5; distance between anterior premolars, across palate, alveoli, 20; between posterior premolars, 20.5; between posterior molars, 22.5; length of audital bulla, 18; length of mandible, 80.5; length of upper lateral tooth row, including canine, alveoli, 43; combined length of upper molars, measured on crowns, 15; upper incisor tooth row, alveoli, 14.5; lower lateral tooth row, including canine, alveoli, 49; length of lower molars, crowns, 20.

* *Procyon hernandezii*, var. *mexicana*, St. Hilaire, Voyage de la Venus, Zoologie, I, 1855, 25, pl. vi (Mazatlan).

Procyon lotor californicus subsp. nov.

SOUTHWESTERN RACCOON.

Type-specimen.—Adult female, Cat. No. 60675, U. S. Nat. Mus.; collected on the ocean beach near the last Mexican Boundary monument (No. 258), San Diego County, in the southwestern corner of California, July 16, 1894, by Frank Xavier Holzner. (Original number, 1605.)

Characters.—Most closely related to *Procyon lotor psora* (Gray) from Sacramento, California, differing in its slightly smaller size and considerably paler coloration, with the overhair of underparts whitish instead of pale yellow; skull narrower, with the audital bulke much compressed laterally.

Color (based on adult male, Cat. No. $\frac{19149}{34867}$, U. S. Nat. Mus., taken at National City, southwestern California, July 22, 1890; original number, 580; from C. K. Worthen).—Upperparts, from nape to tail, soiled grayish white, darkened by brownish-black tips to the overhairs, which are broadest and darkest in the lumbar region; nape and interscapular region faintly tinged with clay color; head with the usual blackish mask, extending backward from the naked nasal pad to the forehead, expanding across the face and sides of head, enclosing the eyes and ending in a point below the ear, with a narrow median process connecting the blackish mask with the dark crown; the mask bordered all round by a white band; lower lip white; ears white with a black band at base extending backward from the anterior base of the ear for a distance of seventy millimeters; crown brownish black considerably mixed with grayish white; underparts with overhair white and so sparse as to reveal the underfur between; upper throat warm sepia; fore limbs dirty grayish white throughout; feet and hind limbs soiled grayish white, showing the dark underfur between the long hairs, and with a brownish-black area above the heel; tail soiled grayish white, with black tip and six dark rings which are obsolete on basal portion above and scarcely discernable anywhere on the underside; underfur of back, and outer surface of limbs, fuscous, paling to benzo brown on the under side of body.

Two adult females (type and practical topotype No. $\frac{19141}{34868}$, U. S. Nat. Mus., from National City, southwestern California),* taken July 16 and 3, respectively, closely resemble the above-described male except that they have a slight brownish suffusion as if dirty from contact with the soil.

External measurements of type (adult female, measured fresh by the author).—Total length, 810; tail vertebrae, 312; pencil, 60; ear from crown, 60; hind foot, with claw, 112; longest whisker, 98; longest hairs on dorsum, 73.

External measurements of adult male (a well-made skin; Cat. No. $\frac{19149}{34867}$, U. S. Nat. Mus.; taken at National City, southwestern California, July 22, 1890).—Head and body, 655; tail, 290; pencil, 50; hind foot, including claw, 120; ear above crown, 29; longest whisker, 98; longest hair on dorsum, 61.†

*The collector recorded the following external measurements on the label: Body, $23\frac{1}{4}$ inches; tail, 11; ear, $2\frac{1}{8}$.

†Collector's measurements from fresh specimen: Body, $24\frac{1}{2}$ inches; tail, $14\frac{1}{2}$; ear, $2\frac{1}{4}$.

Measurements of skull and teeth (adult male, Cat. No. $\frac{31867}{19146}$, U. S. Nat. Mus.; taken at National City, in the southwestern corner of California, July 22, 1890; original number, 580; from C. K. Worthen), compared with measurements of the largest adult male of *Procyon lotor psora* (Cat. No. 3933, U. S. Nat. Mus. Sacramento, California) in the collection, the latter in parentheses: Condylobasal length, 121 (120); zygomatic breadth, 83 (85); breadth of braincase, 56 (58); postorbital constriction, 25 (28); interorbital constriction, 25 (29); rostral breadth over canines, 28.5 (33); least rostral breadth, 27 (31.5); from posterior border of middle incisor to interpterygoid notch, 73 (71); from last point to foramen magnum, 38 (39); length of interpterygoid notch, 13.5 (15); posterior breadth of interpterygoid notch, 14 (15); distance between anterior premolars, across palate, 20 (22); between posterior premolars, 20 (22); between posterior molars, 22 (23); length of audital bulla, 18 (20); length of mandible, 91 (91); length of upper lateral tooth row, including canines, 43.5 (47); combined length of upper molars, crowns, 14.8 (14.5); upper incisor tooth row, alveoli, 15.5 (17); lower lateral tooth row, alveoli, 51 (52); combined length of lower molars, crowns, 19.5 (20); lower incisor tooth row, alveoli, 11 (12.5).

Measurements of skulls and teeth of two adult females (type and Cat. No. $\frac{31868}{19141}$, U. S. Nat. Mus.; National City, southwestern California; original number, 581; from C. K. Worthen), compared with measurements of the largest adult female of *Procyon lotor psora* (Cat. No. 3224, U. S. Nat. Mus.; collected at San Francisco, California, by Captain Rodgers) in the collection, the latter in parentheses: Condylobasal length, 112, 111 (112); zygomatic breadth, 75, 79 (—); breadth of braincase, 55, 53 (55); postorbital constriction, 27, 23 (28); interorbital constriction, 25, 23 (26); rostral breadth over canines, 26.5, 26.5 (28.5); least rostral breadth, 25, 25 (27); from posterior border of middle incisor to interpterygoid notch, 66, 66 (67); from last point to foramen magnum, 36.5, 36.5 (35); length of interpterygoid notch, 14.5, 15 (12); posterior breadth of interpterygoid notch, 13, 14 (15); distance between anterior premolars, across palate, alveoli, 20, 19 (19.5); between posterior premolars, 20.3, 19.3 (20); between posterior molars, 22, 20.4 (23.5); length of audital bulla, 18, 18 (19); length of mandible, 84, 90 (86); upper lateral tooth row, including canine, 42, 42.5 (43); combined length of upper molars, crowns, 14.2, 14.7 (14.5); upper incisor tooth row, alveoli, 15, 15 (16.5); lower lateral tooth row, 48.5, 49 (51); combined length of lower molars, crowns, 19, 19.7 (19.8); lower incisor tooth row, alveoli, 11.2, 11 (12).